

Serial No. 09/337,181

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BOARD OF PATENT APPEALS
AND INTERFERENCES

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	:	February 23, 2005
Y. Nakamura, et al	:	Group Art No.: 2151
Serial No. 09/337,181	:	Examiner: K. Dinh
Filed: June 21, 1999	:	for IBM Corporation Anne Vachon Dougherty
Title: MESSAGE MULTICAST METHOD AND COMPUTER	:	3173 Cedar Road Yorktown Hts, NY 10598

Board of Patent Appeals and Interferences
Alexandria, VA 22313-1450

APPEAL BRIEF (37 CFR 41.37)

Appellants hereby appeal to the Board of Patent Appeals
and Interferences from the decision dated August 24, 2004 of
the Examiner rejecting Claims 1-20 in the above application,
and respectfully request that the Board of Patent Appeals
and Interferences consider the arguments presented herein
and reverse the Examiner's rejection.

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I. REAL PARTY IN INTEREST

The appeal is made on behalf of Appellants who are real parties in interest with respect to the subject patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no pending related appeals or interferences with respect to the subject patent application.

III. STATUS OF CLAIMS

There are twenty (20) claims pending in the subject patent application, numbered 1-20. No claims stand allowed. All of Claims 1-20 stand rejected. All of Claims 1-20 are the subject of this appeal.

A complete copy of the claims involved in the appeal is attached hereto.

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IV. STATUS OF AMENDMENTS

There are no outstanding, unentered amendments in the application.

V. SUMMARY OF INVENTION

The present application teaches and claims a system (message monitor 5 of Fig. 1) and method for multicasting a retrieval request/query received from a customer/user (9 of Fig. 1) to a plurality of mobile retrieval agents (7 and 11 of Fig. 1) for information gathering. Based on the user-entered retrieval request and preferential destination information (step 101 of Fig. 2), a list (as illustrated at Fig. 15(c)) is dynamically created comprising multiple (i.e., more than one) mobile agents as destinations that can respond to the request (step 103 of Fig. 2). The user does not specify a single destination, but issues a request with preferential destination information (see: Fig. 15(A)). The system/method performs the determination as to which mobile agents can respond to the retrieval request and then multicasts the retrieval request to the determined

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destinations for those mobile agents to respond to the retrieval request.

Under the present invention, the user does not specify the destination (i.e., the identity or the address of the recipient of the retrieval request) or a plurality of pre-registered subscriber destinations. Sending a request to a mobile agent is not simply communicating a message to a recipient destination. Rather, the user inputs the message and preferential destination information. The present system then uses the preferential destination information to determine mobile agents which can respond to the retrieval request. In addition, the present invention can use message policy information when determining the mobile agents that will receive the requests, thereby allowing agent priority considerations to be factored into the determination (see: Fig. 15).

VI. STATEMENT OF ISSUES OF APPEAL

The ground of rejection to be reviewed on appeal is as follows:

"Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over West et al (hereafter West), US pat.

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No. 6,081,508 in view of Blakeley et al (hereafter Blakeley), US pat. No. 5,563,878".

The issues on appeal are whether the Examiner erred in interpreting the teachings of the West and Blakeley patents; whether one would logically seek to modify the West patent with the teachings of the Blakeley patent; and, whether the combination of teachings of the West patent and the Blakeley patent would render the claim language unpatentable

VII. ARGUMENTS

Appellants respectfully argue the following: (1) that the Examiner erred in interpreting the teachings of the West and Blakeley patents; (2) that one would not logically seek to modify the West patent with the teachings of the Blakeley patent; and, (3) that the combination of teachings of the West patent and the Blakeley patent would not render the claim language unpatentable.

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ARGUMENT (1)

The Examiner has erred in interpreting the teachings of the West and Blakeley patents and has not established a *prima facie* case of obviousness.

The West patent is directed to a method and system for choosing a communication access method and access number for a remote computer to access a single identified destination, either a single specific local computer or a single specific local area network (Col. 24, line 53) in a first embodiment, or to deliver a message to a message module representing a predetermined group of registered subscribers (Col. 25, lines 14-16) in a second embodiment. West discloses software for determining an access path and the cost of accessing along the path in order to connect one computer to an identified destination(s) in the least expensive manner.

The West patent is not directed to multicasting a retrieval request to mobile request handling agents for responding to the retrieval request. Rather, West seeks only to connect one user computer 100 to one user-specified destination 110 in the first embodiment and to deliver one

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message from a user computer 100 to a delivery module representing a plurality of preregistered subscribers in the second embodiment. In both embodiments, the user in the West system does not enter preferential destination information for multicasting a retrieval request to a plurality of destinations/agents which are unknown to the user. Rather, the West user simply identifies the exact destination(s) or the exact ring of trusted preregistered recipients and the West software determines the best and cheapest way to connect the user computer to that exact single destination in the first embodiment and the best and cheapest way to deliver the message to a message delivery module accessible by registered users in the second embodiment.

In the first West embodiment wherein one user computer 100 is being connected to one destination computer 110, exact identification and/or address information is provided by the user. Appellants refer the Board's attention to the teachings found in Column 6, lines 8-11 wherein it is expressly taught that the user enters "calling to" information to identify the destination computer to which the user wishes to be connected. There are no passages in West which either teach or suggest that a user be connected

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to a destination which is not expressly identified by the user. The West system evaluates different paths and access providers for establishing the connection between the user at 100 and the expressly-identified destination at 110, but the destination is definitive as specified by the user and cannot be changed or "selected" by the system. West evaluates and selects access paths/providers but does not evaluate and select mobile agent destinations. Clearly the teachings of West wherein the user specifies the address for the recipient do not teach or suggest the invention as claimed.

Furthermore, with regard to the West embodiment wherein messages are provided from a message user 1805 to multiple message recipients, Appellants note that the message recipients are preregistered with the system (see: Col. 25, lines 14-16). Therefore, the recipients (or destinations) are known to the system. While a user does not have to specify the address of each recipient, the recipients are known destinations which are registered with the system and are not destinations which are dynamically determined by the system based on preferential destination information supplied by the user with a retrieval request and/or based on a messaging policy. West teaches that messages will be

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published to recipients based on so-called "message characteristics" (see: Col. 23, line 55-Col. 6, line 3), meaning pre-defined categories of messages which are to be delivered by pre-defined destinations. Those message characteristics include recipient characteristics (i.e., subscription information) as well as predefined content classes (see: Col. 24, lines 10-18) which are specified by the user. In other words, the user of the West system who wishes to send a message will select a predefined characteristic, such as "accounting message" (see: Col. 24, lines 22-26). The West system then matches the message characteristic with the subscription information (Col. 24, lines 43-47) and delivers the accounting message to the predetermined list of all subscribers who are registered to receive accounting messages. Accordingly, in this second embodiment, West delivers the message to specified destinations. West does not dynamically assemble a list of mobile request handling agent destinations which can handle a retrieval request. West simply accesses a predetermined registration list of destinations. Moreover, West does not utilize user destination preference information for which mobile agents will receive a retrieval request. West simply

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matches the user-selected predefined characteristic (e.g., accounting message) to the stored list.

The Examiner has stated that the West "user can choose from a "pull down" list of names" and cites several passages. Appellants have reviewed the cited passages from Col. 4, line 56-Col. 5, line 56; Col. 7, line 13-Col. 8, line 60, and Col. 25, line 3-Col. 26, line 65 and fail to see where West is teaching the list of names of destinations that can respond to the retrieval request. The only West passages which teach presenting a list of destinations to the user provide that the list includes destinations which the user has previously contacted. Clearly such is not the same as or suggestive of dynamically creating a list of destinations which can respond to a specific request, wherein the list is created by the system based on the request and on the non-address preferential destination information provided by the user. When the West user selects from a list, it is a list of destination addresses (i.e., telling the system exact destination addresses) and is not based on a retrieval request. Furthermore, it is the West user who selects the sites to receive the message and it is not the system which automatically and dynamically creates the list and multicasts the message to the sites.

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Appellants believe that the Examiner has erred in interpreting the teachings of West, since West does not teach or suggest the receiving of a retrieval request with preferential destination information for delivery to more than one determined destination agent, does not teach the use of preferential destination information for determining more than one agent as a destination agent, does not teach the dynamic creation of a list of destinations that can respond to the retrieval request, and does not teach the sending of the retrieval request to more than one agent determined as destinations for responding to the retrieval request.

The Examiner has acknowledged that the West patent "does not specifically disclose a non-address destination information in the message". The Examiner cites the Blakeley patent as providing non-address destination information. What the Blakeley patent teaches is routing of a packet which includes a Naming and Address Parameter String (NAPS). The identification of the destination node, as well as the identification of intermediate nodes, may be included (Col. 2, line 19) in the packet, as well as information including (Col. 3, lines 39 and 46-47) the node id of the destination node, the agent name of the

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destination agent, and agent parameters, which are data provided in a field used to pass data among agents (Col. 7, lines 8-9). Therefore, if a source node does not know the exact address of the destination node, it can include the <node-id> and <agent-id> of the destination and of any intermediate node, and the packet will be routed using that information. Each intermediate node may edit the NAPS information if the destination node can be discerned by that intermediate node, using available tables of nodes and agents, and may edit the NAPS information with information about the destination node or a next intermediate node. Each intermediate node sends the packet to a next node (whether intermediate or destination). While the NAPS of Blakeley may not necessarily include the exact address of the destination node and agent, it does explicitly identify the node and agent. Identification of the node and agent is more than "preferential destination information", it is exact destination information.

Appellants conclude that Blakeley provides no teaching or suggestion of receiving a retrieval request with non-address preferential destination information for delivery to more than one determined destination agent, no teaching of suggestion of using preferential destination

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information for determining more than one agent as a destination agent and dynamically creating a list of destinations, and no teaching or suggestion of multicasting a retrieval request to more than one agent determined as destinations for responding to the retrieval request.

Since the collective teachings of West and Blakeley do not teach or suggest all of the claim features, Appellants conclude that the Examiner has not established a *prima facie* case of obviousness. (*In re Wilson*, 424 F. 2d 1382, 165 U.S.P.Q. 494 (C.C.P.A. 1970)).

ARGUMENT (2)

One would not logically combine the cited references.

Appellants respectfully assert that one would not be motivated to modify West with the teachings of the Blakeley patent. Appellants rely on the arguments presented above with regard to the teachings of the West and Blakeley patents and will not reiterate those descriptions or conclusions.

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Appellants first note that there is no suggestion in either of the patents to combine the references. The West patent chooses an optimal communication method and access path knowing its source and destination addresses. West determines the method and path up front, seeking to minimize time and cost. West would not logically be modified using the Blakeley method of allowing a packet to be randomly routed by intermediate nodes, since that would render West unworkable for its intended purpose of finding the best and cheapest way to deliver the message. Appellants quote the Federal Circuit court from *In re Vaeck* (947 F. 2d 488, 493, 20 U.S.P.Q. 2d 1438, 1442 (Fed. Cir. 1991)) that "the suggestion and the reasonable expectation of success must be founded in the prior art". Since neither suggestion nor reasonable expectation of success are found in the art, it must be concluded that the references would not likely be combined, particularly in light of the fact that West, as modified, would be unworkable for its intended purpose.

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ARGUMENT (3)

Modifying West with Blakeley would not result in the invention as claimed.

Appellants again rely on the arguments set forth above with regard to the teachings of West and Blakeley and will not repeat the descriptions and arguments in detail. Even if one were to modify West with the Blakeley NAPS, one would not arrive at the invention as claimed. Neither Blakeley nor West provides any teachings of a system dynamically creating a list of destinations to which to multicast a retrieval request and multicasting that retrieval request to the listed destinations. Both Blakeley and West are concerned with delivering one packet from a source to one destination node. While a number of recipients may be represented by a destination node in West, there is, nonetheless, only one destination. Clearly, therefore, the combination would not obviate multicasting a message. Further, neither West nor Blakeley teaches or suggests the dynamic creating of a list of destinations that can respond to the retrieval request, let alone creating such a list based on the nature of the retrieval request and based on

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non-address preferential destination information provided by the requesting user. Appellants respectfully assert that even if one were to include the Blakeley NAPS in West, that information would still exactly identify the destination node and agent. With the exact destination node and agent information, West would determine the best access method and path for getting the message to the destination node.

Since neither West nor Blakeley teaches or suggests dynamically creating a list of destination mobile agents that can respond to a specific retrieval request, and sending the request to all destinations on the list, as is expressly recited in all of the claims, it cannot be maintained that the combination of teachings obviates the invention as claimed.

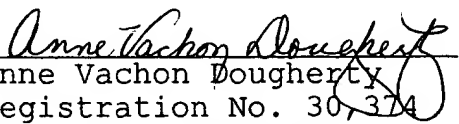
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CONCLUSION

Appellants respectfully assert that the Examiner has erred in rejecting Claims 1-20 as being unpatentable over West in view of Blakeley. The Examiner erred in interpreting the teachings of the West and Blakeley patents; erred in concluding that one would logically seek to modify the West patent with the teachings of the Blakeley patent; and, erred in concluding that the combination of teachings of the West patent and the Blakeley patent would render the claim language unpatentable. In light of the foregoing arguments, Appellants request that the decision of the Examiner, rejecting all of the pending claims, be overturned by the Board and that the claims be passed to issuance.

Respectfully submitted,
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APPENDIX OF CLAIMS

1. A method for multicasting a retrieval request message to more than one of a plurality of mobile request handling agents, comprising the steps of:

receiving a packet comprising a retrieval request message and non-address preferential destination information for said retrieval request as designated by a user;

dynamically creating a list of destinations that can respond to said retrieval request, said list comprising more than one of said plurality of mobile request handling agents to whom said message is to be sent, by referring to said retrieval request and said non-address preferential destination information; and

sending said message to said list of more than one of said plurality of mobile request handling agents determined as destinations for responding to said retrieval request.

2. The method according to claim 1, wherein said determining step further comprises a step of: referring to messaging policy data defining priorities of agents to which said message can be sent.

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3. The method according to claim 2, wherein said messaging policy data is defined for each type of message.

4. The method according to claim 2, wherein said messaging policy data defines the number of agents which receive the message for each type of message.

5. The method according to claim 2, wherein said determining step further comprises a step of: using said priorities of agents defined in said messaging policy data and pairs of agent names and priorities included in said preferential destination information to determine destination agents from an agent having highest priority.

6. The method according to claim 1, further comprising a step of: sending information concerning agents which are not determined as destination agents and said message to a representative agent which represents agents to which said message can be sent.

7. The method according to claim 2, further comprising a step of: sending information concerning agents which are not determined as destination agents and said

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message to a representative agent which represents agents to which said message can be sent.

8. The method according to claim 6, wherein said representative agent generates a response message for a source agent of a message, by referring to information from preregistered agents to which said message can be sent.

9. The method according to claim 7, wherein said representative agent generates a response message for a source agent of a message, by referring to information from preregistered agents to which said message can be sent.

10. A computer comprising:

an execution environment for a plurality of mobile request handling agents; and

a message monitor for receiving a packet, comprising a retrieval request message and non-address preferential destination information designated by a user, from an agent being active in the execution environment for said mobile agents, and for dynamically creating a list of destinations that can respond to said retrieval request, said list comprising more than one of said plurality of mobile agents

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to whom said message is to be sent by referring to said retrieval request and said non-address preferential destination information, and for multicasting said messages to said list of more than one of said plurality of mobile request handling agents determined as destination agents for responding to said retrieval request.

11. The computer according to claim 10, further comprising: a storage device storing a messaging policy data defining priorities of agents to which said message can be sent.

12. The computer according to claim 11, wherein said message monitor determines, by using said priorities of agents defined in said messaging policy data and pairs of agent names and priorities included in said preferential destination information, destination agents from an agent having highest priority.

13. The computer according to claim 10, wherein said message monitor sends information concerning agents which are not determined as destination agents and said message to

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a representative agent which represents agents to which said message can be sent.

14. The computer according to claim 11, wherein said message monitor sends information concerning agents which are not determined as destination agents and said message to a representative agent which represents agents to which said message can be sent.

15. A storage medium for storing a program executable by a machine for causing the machine to perform method steps for multicasting a retrieval request message to more than one of a plurality of mobile request handling agents, said method comprising the steps of:

receiving a packet comprising a retrieval request message and non-address preferential destination information for said retrieval request as designated by a user;

dynamically creating a list of destinations that can respond to said retrieval request, said list comprising more than one of said plurality of mobile request handling agents to whom said message is to be sent, by referring to said retrieval request and said non-address preferential destination information; and

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sending said message to said list of more than one of said plurality of mobile request handling agents determined as destinations for responding to said retrieval request.

16. The storage medium according to claim 15, wherein said determining step comprises a step of: referring to a messaging policy data defining priorities of agents to which said message can be sent.

17. The storage medium according to claim 15, wherein said program further comprises a step of: sending information concerning agents which are not determined as destinations and said message to a representative agent which represents agents to which said message can be sent.

18. The storage medium according to claim 16, wherein said program further comprises a step of: sending information concerning agents which are not determined as destinations and said message to a representative agent which represents agents to which said message can be sent.

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19. A method for multicasting a retrieval request message to more than one of a plurality of mobile request handling agents, comprising the steps of:

receiving a retrieval request message;

dynamically creating a list of destinations that can respond to said retrieval request message, said list comprising more than one of said plurality of mobile request handling agents to whom said message is to be sent, by referring to a messaging policy data defining priorities of mobile request handling agents to which said message can be sent; and

sending said message to said list of more than one of said plurality of mobile request handling agents determined as destinations for responding to said retrieval request receiving a retrieval request message.

20. A storage medium for storing a program for causing a machine to execute the steps of a method for multicasting a retrieval request message to more than one of a plurality of mobile request handling agents, said method comprising the steps of:

receiving a retrieval request message;

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dynamically creating a list of destinations that can respond to said retrieval request message, said list comprising more than one of said plurality of mobile request handling agents to whom said message is to be sent, by referring to a messaging policy data defining priorities of mobile request handling agents to which said message can be sent; and

sending said message to said list of more than one of said plurality of mobile request handling agents determined as destinations for responding to said retrieval request.